

Appl. N . 09/902,277

CLAIMS

51. A method of forming a bottom-gated thin film transistor comprising the following steps:

forming a transistor gate;

forming a polycrystalline thin film transistor layer over the transistor gate;

forming a fluorine-containing layer proximate the polycrystalline thin film transistor layer, the fluorine-containing layer comprising tungsten; and

transferring fluorine into the polycrystalline thin film transistor layer from the fluorine-containing layer.

52. The method of claim 51 wherein the polycrystalline thin film transistor layer comprises silicon.

53. The method of claim 51 wherein the forming a fluorine-containing layer comprises chemical vapor deposition utilizing  $WF_6$  and  $SiH_4$  precursors.

54. The method of claim 53 further comprising, after the transferring fluorine, removing the fluorine-containing layer from over the thin film transistor layer.

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55. A method of forming a bottom-gated thin film transistor comprising the following steps:

forming a transistor gate;

forming a polycrystalline thin film transistor layer over the transistor gate;

forming a fluorine-containing layer over the transistor gate and over the polycrystalline thin film transistor layer;

providing a buffering layer intermediate the thin film transistor layer and the fluorine-containing layer; and

transferring fluorine into the polycrystalline thin film transistor layer over the transistor gate from the fluorine-containing layer.

56. The method of claim 55 wherein the fluorine-containing layer comprises tungsten.

57. The method of claim 55 wherein the buffering layer comprises  $\text{SiO}_2$ .

58. The method of claim 55 wherein the polycrystalline thin film transistor layer comprises germanium.